

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (ORIGINAL) A system for correcting links to resources in a network, comprising:

a link checking service unit associated with a first group of resources and configured for determining if a location of a resource among the first group of resources has changed; and

a link correction service unit configured for sending a request to the link checking service to determine validity of a link, receiving a response indicating a status of the link, and modifying a document containing the link based on the received response.
2. (ORIGINAL) The system of claim 1, wherein said document is a World-Wide Web page, and said link is a hypertext link.
3. (ORIGINAL) The system of claim 1, wherein the link checking service unit sends a response message containing a current location of said resource if the location of said resource has changed, and the link correction service, in response to receiving the response message changing a document containing the link to indicate the current location of the resource.
4. (ORIGINAL) A method of correcting a link in a document, comprising:

sending a request to a link checking service unit to check a status of a resource corresponding to the link;

receiving a response to said request, the response containing an indication of a changed location of the resource; and

changing the document based on the indication of the changed location of the resource.

5. (ORIGINAL) The method of claim 4, wherein the response further includes a link status code indicating a status of the resource.

6. (ORIGINAL) The method of claim 4, wherein the document is a World-Wide Web page and the link is a hypertext link.

7. (CURRENTLY AMENDED) The method of claim 4, wherein the link includes a first uniform resource locator (URL) and the indication of the changed location of the resource includes a second URL, wherein the document is ~~changing~~changed by changing the first URL in the link to the second URL.

8. (ORIGINAL) The method of claim 4, wherein the document is changed by automatically deleting the link in the document if the response does not include a replacement link and contains a link status code indicating that the link is invalid.

9. (ORIGINAL) The method of claim 4, wherein said sending a request, receiving a response, and changing the document are performed in a web server.

10. (ORIGINAL) An apparatus for correcting a link in a document, comprising:
a document repository having stored therein one or more documents;
a corrected document repository having stored therein one or more corrected documents;

a link correction service unit connected to the document repository and the corrected document repository, and configured to parse a link from one of the documents in the document repository, generate a request for checking the validity of the link, correct the link in response to receipt of a response message containing a corrected link, and store a corrected document having the corrected link in the corrected document repository.

11. (ORIGINAL) The apparatus of claim 10, wherein the apparatus is part of a web server.

12. (ORIGINAL) The apparatus of claim 10, wherein the link is a hypertext link containing a uniform resource locator (URL) and the document is a web page.

13. (ORIGINAL) An apparatus for correcting a link in a document, comprising:
means for sending a request to a link checking service unit to check a status of a resource corresponding to the link;
means for receiving a response to said request, the response containing an indication of a changed location of the resource; and
means for changing the document based on the indication of the changed location of the resource.

14. (ORIGINAL) A computer readable medium of instructions suitable for execution by a computer, comprising:
program instructions for sending a request to a link checking service to check a status of a resource corresponding to the link;

program instructions for receiving a response to said request, the response containing an indication of a changed location of the resource; and

program instructions for changing the document based on the indication of the changed location of the resource.

15. (ORIGINAL) A method for determining a status of a link in a document, comprising:

receiving a request to determine the status of the link in the document, wherein the link includes a location indicator of a resource;

detecting if the resource is present within a storage unit at a location indicated by the location indicator;

determining if the resource is present at an alternate location if the resource is not detected in the location indicated by the location indicator; and

returning an alternate location identifier indicating the alternate location of the resource if the resource is determined to be present at the alternate location.

16. (ORIGINAL) The method of claim 15, wherein the link is a hypertext link and the location indicator of the resource is a uniform resource locator (URL).

17. (ORIGINAL) The method of claim 16, wherein the resource is a web page.

18. (ORIGINAL) The method of claim 16, further comprising returning a link status code indicating whether the resource is present in the storage unit.

19. (ORIGINAL) The method of claim 18, wherein the link status code indicates whether the resource has been deleted from the storage unit.

20. (ORIGINAL) The method of claim 15, wherein said determining if the resource is present at an alternate location is performed by consulting a mapping table associating a first location indicator with a second location indicator, wherein the first location indicator indicates a prior location of the resource and the second location indicator indicates a present location of the resource.

21. (ORIGINAL) The method of claim 20, wherein the first and second location indicators are uniform resource locators (URLs).

22. (ORIGINAL) An apparatus for correcting a link in a document, comprising:
a document repository having stored therein one or more documents;
a mapping table unit having stored therein mapping table information associating a first prior resource-locator with a first present resource-locator, the first prior resource-locator indicating a prior location of a first resource within the document repository and the first present resource-locator indicating a present location of the first resource; and

a link checking service unit connected to the document repository and the mapping table unit, and configured to locate an entry in the mapping table information based on a requested resource-locator contained in a request for information concerning location of the first resource, to identify the first present resource-locator stored in association with the first prior resource-locator, and to send a response message containing the first present resource-locator.

23. (ORIGINAL) The apparatus of claim 22, wherein the first prior and first present resource-locators are uniform resource locators (URLs).

24. (ORIGINAL) The apparatus of claim 22, wherein the mapping table further includes a second prior resource-locator indicating a location of a second resource and a status code indicating a status of the second prior resource-locator.

25. (ORIGINAL) The apparatus of claim 24, wherein the status code indicates that the second resource corresponding to the second prior resource-locator has been deleted.

26. (ORIGINAL) The apparatus of claim 24, wherein the status code indicates that the second prior resource-locator indicates a present location of the second resource in the document repository.

27. (ORIGINAL) The apparatus of claim 22, wherein the apparatus is part of a web server.

28. (ORIGINAL) An apparatus for determining a status of a link in a document, comprising:

means for storing one or more resources;

means for receiving a request to determine the status of the link in the document, wherein the link includes a location indicator of a resource;

means for detecting if the resource is present within said means for storing at a location indicated by the location indicator;

means for determining if the resource is present at an alternate location if the resource is not detected in the location indicated by the location indicator; and

means for returning an alternate location identifier indicating the alternate location of the resource if the resource is determined to be present at the alternate location.

29. (ORIGINAL) A computer readable medium of instructions suitable for execution on a computer for determining a status of a link in a document, comprising:

program instructions for receiving a request to determine the status of the link in the document, wherein the link includes a location indicator of a resource;

program instructions for detecting if the resource is present within a storage unit at a location indicated by the location indicator;

program instructions for determining if the resource is present at an alternate location if the resource is not detected in the location indicated by the location indicator; and

program instructions for returning an alternate location identifier indicating the alternate location of the resource if the resource is determined to be present at the alternate location.